Open Data

Share and map your data with ArcGIS® technology.

"Publishing data as map services is one of the most valuable ways to communicate and collaborate. Maps enable an immediate understanding of the patterns and relationships the information portrays." —Esri President Jack Dangermond

Make the Most of Open Data with GIS

Open government initiatives are bringing a new wealth of public data to the web, enabling citizens and government to share a common picture of the intelligence that drives decisions across the nation. Like the Gov 2.0 movement, open government promotes transparency, accountability, and citizen engagement and recognizes that Web 2.0 technologies allow stakeholders to access information and collaborate online as never before.

The true value of opening government data lies in how agencies and the public put it to use. Providing access to data is an essential first step, but sharing it in an informative format is the key to fostering a new level of government communication and efficiency. Geographic information system (GIS) technology unlocks the potential of open data by bringing it into an enlightening spatial context, enabling individuals and government to better understand their world and take informed action.

For decades, the US government has relied on Esri's GIS platform to support mission-critical tasks and daily operations. Now government and the private sector are leveraging GIS resources to map and share vast amounts of newly available data—a vital step in facilitating open government.

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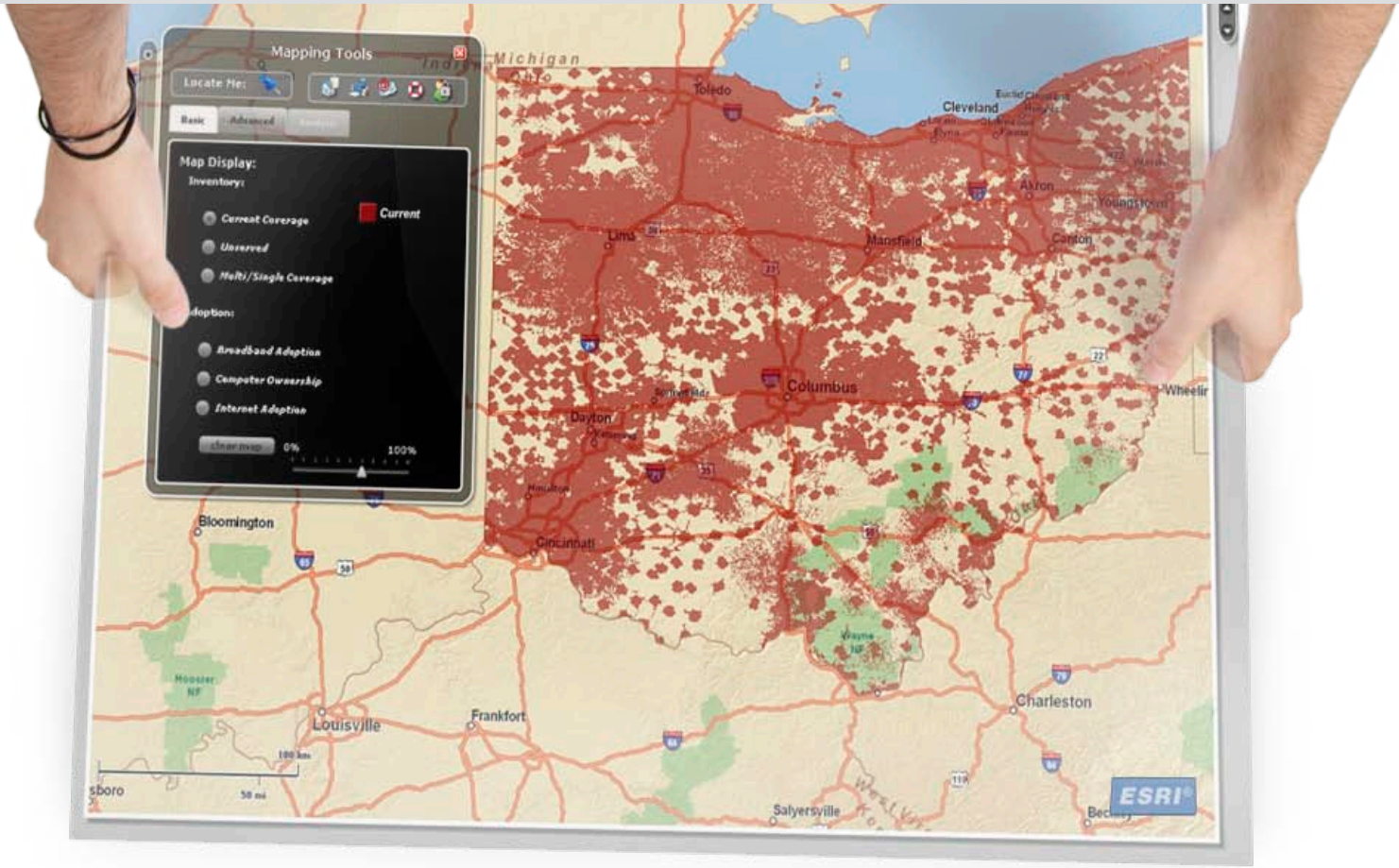


BroadbandStat displays Ohio's current broadband coverage on an interactive map.

The Power of Authoritative Data

With the launch of Data.gov, an abundance of authoritative government datasets is now readily available online. The government has invested in the creation and maintenance of a large reserve of US geographic information. Included are census findings, geologic surveys, conservation and land-use information, infrastructure assessments, tax records, health statistics, and education data.

Besides fostering open government, the release of this information spurs innovation as open data is brought to life through the creation of new tools and applications. Online mapping applications are proving to be one of the most effective vehicles for communicating government data. The federal government acknowledged the value of geospatial data visualization through its Data.gov GEO Viewer, which enables anyone to view and combine datasets on an interactive map. Because these applications are based on authoritative data, stakeholders can depend on them to identify factors that impact them, support informed decision making, and contribute to a more informed public dialog.

Federal Communications Commission

With funding from the American Recovery and Reinvestment Act (ARRA), the Federal Communications Commission (FCC) is using Esri's BroadbandStat application to develop a web-based map showing broadband coverage across the country. As part of FCC's National Broadband Plan, the map will guide initiatives to improve high-speed Internet access for residents and businesses in an effort to stimulate economic growth and boost capabilities in education, health care, homeland security, and more.

Anatomy of an Open Data Solution

1

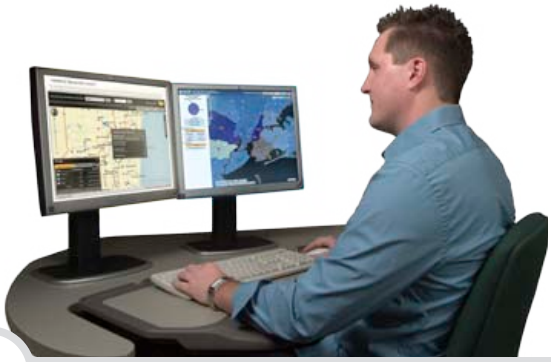
Government Creates and Maintains Authoritative Data

Government's extensive geospatial data resources provide the most accurate picture of the complex factors at work throughout the world.

2

Governments Share Public Datasets

Open government initiatives drive agencies to publish their datasets on sites like Data.gov, Geoplatform.gov, and ArcGIS.com, opening access to a new wealth of information.



3

New Applications Bring Data into Context

Developers use APIs to create online mapping applications that communicate complex government data in an easy-to-understand geographic format.

4

Government and Citizens Collaborate

Data-rich web applications enable increased transparency, communication, and efficiency.

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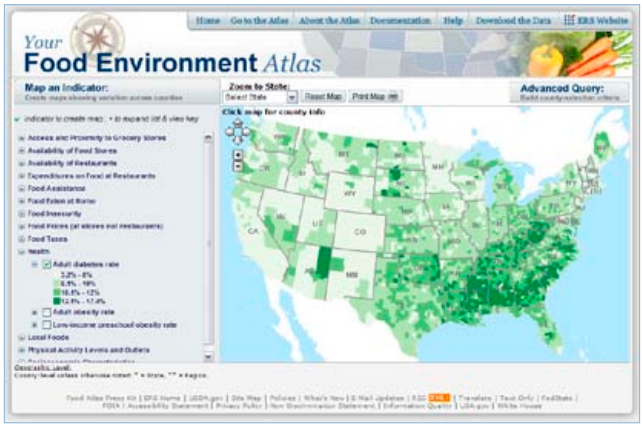
From Open Data to Open Government

A geographic perspective brings issues into context, engages the public, and improves transparency. Using GIS technology, government and citizens can map datasets and create mashups of data layers to compare different factors and their relationships. By sharing the information behind the decision-making process, government can more clearly convey its intentions and empower an informed, constructive public response.

Department of Agriculture

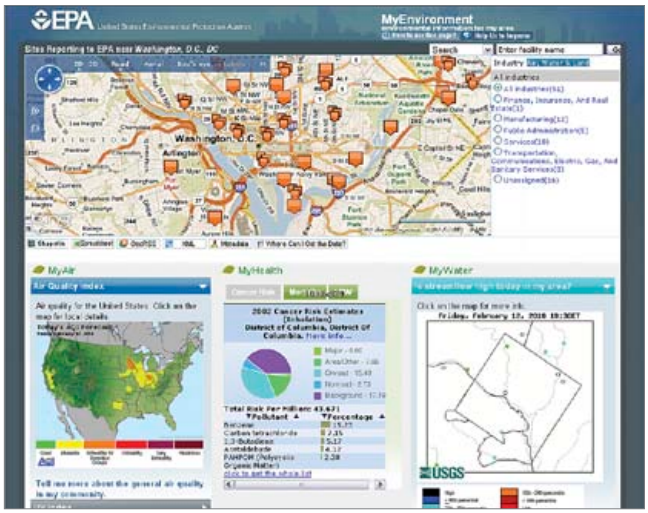
The US Department of Agriculture (USDA) Economic Research Service pooled over 90 indicators of health and lifestyle to create its web-based Food Environment Atlas. This visual interface allows the public to layer and analyze variables that impact Americans' access to healthy food and reveals "food deserts" where services are most needed. The USDA also launched a cloud-based, private geospatial portal that serves as the central repository for authoritative content and is accessible to users within the department as well as other public agencies.



Nationwide adult diabetes rates are depicted on a scale from 3.2 percent to 17.4 percent (light green to dark green, respectively).

Environmental Protection Agency

The Environmental Protection Agency's MyEnvironment website offers an easy-to-use online interface that provides the public with environmental information such as air and water quality. This tool incorporates federal, state, local, and private data sources to provide a comprehensive snapshot of environmental indicators. Citizens can create maps, charts, and reports on the environmental factors that impact them.



MyEnvironment links directly to relevant data sources and presents the information in several formats.

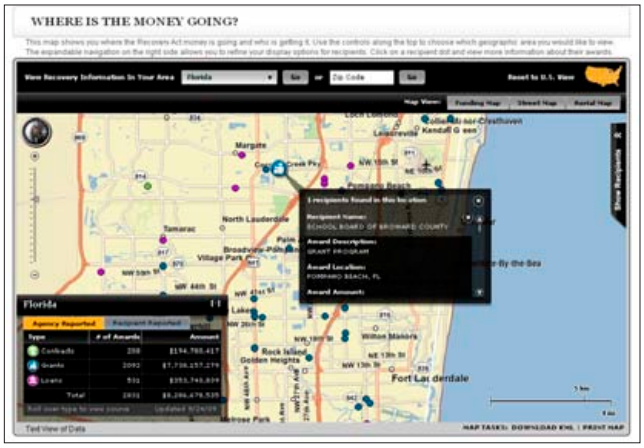
mapping citizen engagement open government social media collaboration

Delivering Open Data from the Cloud

Accessing GIS technology and open data in the cloud is making agencies more flexible and resilient. Cloud computing cuts costs and supports broad variations in demand. When disaster strikes, spatial data can be readily accessed to assess a situation and execute a response regardless of material damage on the ground. In effect, open data and online GIS technology are fostering the development of authoritative, centralized geographic information resources that are available to anyone at any time.

Recovery Accountability and Transparency Board

Recovery.gov became the first government-wide system to move to a cloud computing infrastructure, allowing more efficient computer operations, improved security, and reduced costs. The Recovery.gov website features a map that tracks spending of the $787 million economic stimulus package established by ARRA. The dynamic map shows where ARRA funds have been awarded and provides details on each recipient.



Esri's GIS technology drives Recovery.gov's dynamic cloud-based online mapping tool.

Commonwealth of Kentucky

Kentucky's public portal at KyGovMaps.com provides citizens with quick access to maps, apps, and data for a better understanding of statewide issues and trends. These authoritative geospatial resources leverage basemaps, map viewers, and storage from Esri. Users can even incorporate their own data into ready-made basemaps without any special tools or skills. The site also provides decision makers with information they couldn't readily access before, enabling them to more effectively research issues, share findings, and make informed decisions.

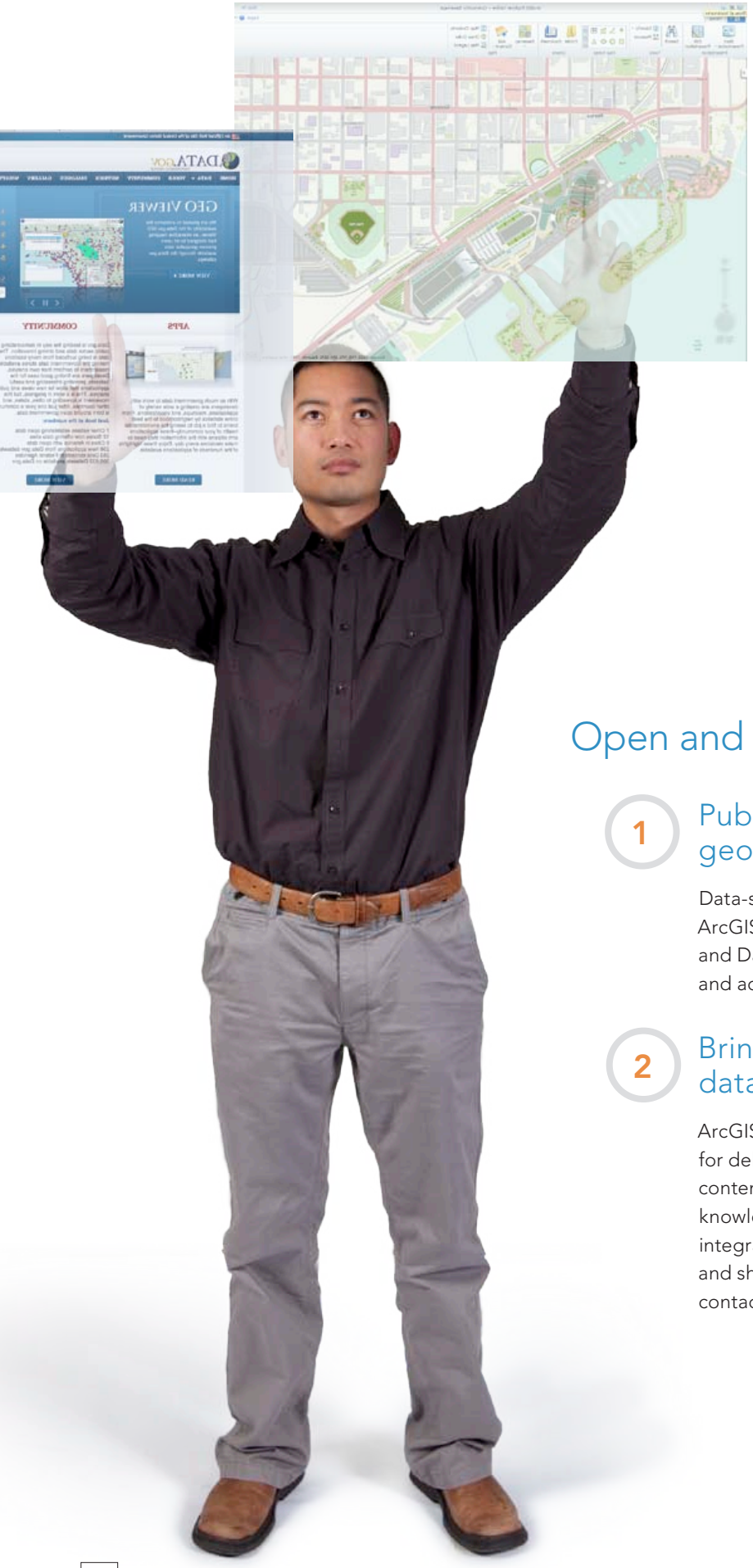
Kentucky agencies provide the public with a wide variety of data-rich, easy-to-use maps accessible from a single online portal.

cloud computing

accountability

transparency

apps



Open and Map Public Data in Two Steps

1 Publish authoritative geospatial datasets.

Data-sharing repositories, such as ArcGIS℠ Online, Geoplatform.gov, and Data.gov, make it easy to upload and access authoritative public data.

2 Bring meaning to the data through maps.

ArcGIS Online provides a platform for delivering your authoritative content. Even those without GIS knowledge can create maps, integrate data from different sources, and share maps with specific contacts or the public.

Visit ArcGIS.com to access free, configurable applications that help meet business and agency needs. For example, citizens can download a mobile application that allows them to report public issues such as damaged roads.

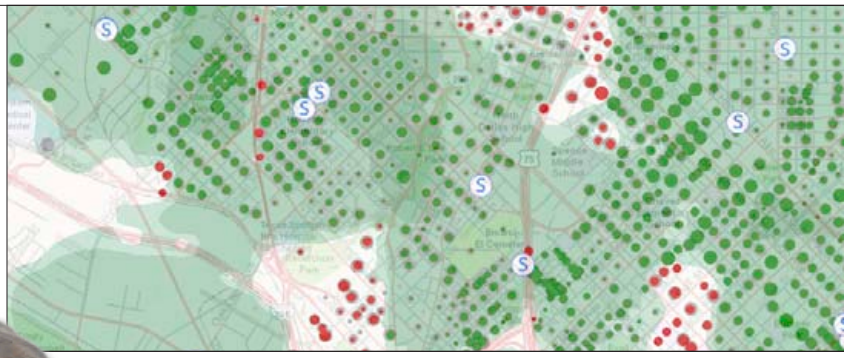
Create a Custom Mapping Application

Esri's online resources facilitate fast web application development so you can make the most of authoritative and crowdsourced data while supporting operationally critical systems and government directives. ArcGIS® technology provides the platform for open government initiatives because it supports delivery of mapping services and applications across the web. Accessible on premises or in the cloud, this technology provides a foundation for leveraging geospatial investments and effectively managing data, conducting spatial analysis, and deploying mobile services.

Get Resources from ArcGIS Online

Find a wealth of tools, sample applications, and data sharing activity at ArcGIS.com. You can post data and maps to share with the public or established ArcGIS groups, or use ArcGIS as a portal for your organization.

To learn more about GIS and open data, visit esri.com/opengov.



Esri inspires and enables people to positively impact their future through a deeper, geographic understanding of the changing world around them.

Governments, industry leaders, academics, and nongovernmental organizations trust us to connect them with the analytic knowledge they need to make the critical decisions that shape the planet. For more than 40 years, Esri has cultivated collaborative relationships with partners who share our commitment to solving earth's most pressing challenges with geographic expertise and rational resolve. Today, we believe that geography is at the heart of a more resilient and sustainable future. Creating responsible products and solutions drives our passion for improving quality of life everywhere.

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